

25X1A

Attachment to
[REDACTED]

CURRENT PLANS FOR SYSTEMS CAPABILITY EFFORT

2 MAY 1968

SECRET/SPECIAL HANDLING

SECRET/SPECIAL HANDLING

<u>FLIGHT</u>	<u>TEST</u>	<u>DESCRIPTION</u>
CR-1	FILTER EXPOSURE	21, 23A, 25 1-1/3 STOP RANGE; DENSITY COMPARISON
CR-2	BISPECTRAL POLARIZER SO-230	W/25 + SF-05 POLOCOAT, 20° ANGLE
CR-3	BISPECTRAL WIDE BAND FILTER SO-380	W/25 + SF-05, OPERATIONAL WRATTEN NO. 12 ULTRA THIN BASE FILM
CR-4	SO-180 3400	COLOR INFRARED FILM NIGHT
	OR	
	SO-180 BISPECTRAL	COLOR INFRARED FILM W/25 + SF-05
CR-5	SO-121	EKTACHROME COLOR

SECRET/SPECIAL HANDLING

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1. FILTER EVALUATION

- o BASIC OBJECTIVE: SEE WHAT DIFFERENCES OCCUR IN OPERATIONAL PHOTOGRAPHY WITH THE WRATTEN NO. 12, 21, 23A, AND 25 FILTERS
 - A. SUBJECTIVE EVALUATION
 - B. MTF ANALYSIS OF IMAGE QUALITY
 - C. TRADEOFF BETWEEN EXPOSURE TIME AND ATMOSPHERICS

2. EXPOSURE ANALYSIS

- o BASIC OBJECTIVE: DETERMINE:
 - 1. IF SLIT CHANGED PROPERLY
 - 2. IF WE EXPOSE PROPERLY
 - 3. COMPARISON BETWEEN TARGETS AND TERRAIN DENSITIES
- A. SUBJECTIVE EVALUATION
- B. DENSITY VERSUS FREQUENCY ANALYSIS
- C. EXPOSURE ANALYSIS WITH HIGH PRIORITY TARGETS
- D. COMPARISON OF TARGETS AND TERRAIN DENSITIES

3. BISPECTRAL PHOTOGRAPHY

- o BASIC OBJECTIVE: TEST THE OPERATIONAL FEASIBILITY OF OBTAINING BISPECTRAL PHOTOGRAPHY FROM MISSION PHOTOGRAPHY
 - A. SUBJECTIVE ANALYSIS OF TARGETS WITH RESPECT TO TONAL DIFFERENCES, (NPIC)
 - B. OBTAIN GOOD BISPECTRAL PRINTS
 - C. IMAGE QUALITY ANALYSIS OF SF-05 IMAGERY
 - D. TEST BEST METHOD OF OBTAINING BISPECTRAL IMAGES

SECRET/SPECIAL HANDLING

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4. POLARIZER FILTER

- o BASIC OBJECTIVE: DETERMINE THE EFFECTIVENESS OF A POLARIZER AS A HAZE-CUTTING FILTER
 - A. IMAGE QUALITY ANALYSIS
 - B. ATMOSPHERIC EFFECTS AS A FUNCTION OF SOLAR ALTITUDE AND AZIMUTH.
 - C. DETERMINE EFFECTIVE FILTER FACTOR
 - D. SUBJECTIVE ANALYSIS OF TONAL RENDITION

5. SO-230

- o BASIC OBJECTIVE: COMPARE SO-230 WITH 3404 IN AN OPERATIONAL MISSION
 - A. FILM SENSITOMETRIC CHARACTERISTICS (FOG, GAMMA, SPEED, FILTER FACTORS)
 - B. FILM IMAGE QUALITY ANALYSIS (MTF, RESOLUTION)
 - C. SUBJECTIVE EVALUATION OF FLIGHT FILM
 - D. SYSTEM RESOLUTION
 - E. TONE REPRODUCTION COMPARISON

6. SO-380

- o BASIC OBJECTIVE: TEST SO-380 IN THE SYSTEM
 - A. FILM SENSITOMETRIC CHARACTERISTICS (FOG, GAMMA, SPEED, FILTER FACTORS)
 - B. FILM IMAGE QUALITY ANALYSIS (MTF, RESOLUTION)
 - C. SUBJECTIVE EVALUATION OF FLIGHT FILM
 - D. SYSTEM RESOLUTION (MTF/AIM)
 - E. LAB CHAMBER TESTS
 - F. LIMITED DIMENSIONAL STABILITY ANALYSIS

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7. SO-180

o BASIC OBJECTIVE: OBTAIN MISSION PHOTOGRAPHY WITH CAMOUFLAGE COLOR FILM

- A. SUBJECTIVE ANALYSIS OF INFORMATION CONTENT
- B. TONE REPRODUCTION ANALYSIS
- C. RELATIVE IMAGE QUALITY (RESOLUTION, MICROPHOTOGRAPHS)

8. NIGHT PHOTOGRAPHY

o BASIC OBJECTIVE: DETERMINE IF ACTIVITY CAN BE DETECTED AT NIGHT

- A. SUBJECTIVE ANALYSIS
- B. STATIC ANALYSIS
- C. THEORETICAL ANALYSIS OF NIGHT DETECTION CAPABILITY

SECRET/SPECIAL HANDLING

TOP SECRET

25X1A

CONTROL NO. [REDACTED]

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REFERRED TO OFFICE	RECEIVED			RELEASED		SEEN BY	
	SIGNATURE	DATE	TIME	DATE	TIME	NAME & OFFICE SYMBOL	DATE
[REDACTED]						<i>[Signature]</i>	

Handle Via Indicated Controls

[REDACTED]

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Access to this document will be restricted to those persons cleared for the specific projects;

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TOP SECRET

MEMORANDUM FOR:
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TSSG/TAD

Secretary

Note: It is planned that the next two CR missions will have substantial amounts of color film (IR film SO-180 in CR-4 and Ektachrome SO-121 in CR-5)

14 MAY 1968
(DATE)

FORM NO. 101
1 AUG 54 REPLACES FORM 10-101
WHICH MAY BE USED.